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ABSTRACT

The role of social awareness in the employment success of adolescents with mild mental retardation was examined in a two-phase study. In phase 1, a set of social awareness descriptors designed to measure the three components of social awareness--sensitivity, insight, and communication--was developed and validated in a five-stage process. In phase 2, secondary teachers used the descriptors and two measures of employment success to evaluate 125 adolescents with mild mental retardation. The social awareness ratings approximated a normal distribution and were highly interrelated r > .80). Statistically significant differences in social awareness components were found between the students rated higher and lower on work performance. Approximately 13% of the variance in different students' work performance was attributable to the three social awareness components considered. The remaining variance was attributed to other factors such as familiarity with job tasks, physical coordination and health, dependability, work safety, and willingness to complete tasks. It was concluded that the greatest distinction between students rated higher and lower on work performance could be based on awareness of social communication or, in other words, ability to take appropriate action involving clearly communicating with others, solving interpersonal problems, and resolving conflicts. (Contains 41 references) (MN)

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THE ROLE OF SOCIAL AWARENESS IN THE EMPLOYMENT SUCCESS OF ADOLESCENTS WITH MILD MENTAL RETARDATION

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THE ROLE OF SOCIAL AWARENESS IN THE EMPLOYMENT SUCCESS OF ADOLESCENTS WITH MILD MENTAL RETARDATION

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Abstract

To determine the role of social awareness in the employment success of young adults with mild mental retardation, a set of reliable and valid social awareness descriptors was developed through a five-stage process. Secondary teachers used descriptors and two measures of employment success to evaluate 125 adolescents with mild mental retardation. Social awareness ratings approximated a normal distribution and were highly interrelated (r >.80). Statistically significant differences in social awareness components were found between students rated higher and lower on work performance; but no significant differences were found based on employment stability.

Introduction

Work plays an important role in determining how people view individuals in our society (Brolin, 1989). Unfortunately, for persons with disabilities, unemployment and underemployment often hinders a satisfying adult work experience and contributes to less positive societal reactions (Berkell & Gaylord-Ross, 1989; Gajar, Goodman, & McAfee, 1993). The research literature is replete with evidence suggesting that many young adults with mild mental retardation experience difficulty in employment and other adult roles due to inappropriate social behavior (Brickey, Browning, & Campbell, 1982; Chadsey-Rusch, 1992; Cheney & Foss, 1984; Greenspan & Shoultz, 1981; La Greca, Stone, & Bell, 1982; Neubert, Tilson, & Ianacone, 1989). Therefore, identifying elements critical to social success is of primary importance in designing and targeting appropriate vocational interventions and school-to-work transition programs for this population.

Greenspan has proposed that social competence is comprised of temperament, character, and social awareness (1979, 1981; Greenspan & Driscoll, 1997). Temperament refers to physiological responses to social stimuli such as impulsivity, emotionality, or frustration tolerance. Character reflects the moral quality of an individual's response to social stimuli such as niceness/nastiness, politeness, and concern for rights/feelings of others. Social awareness is an individual's ability to understand and effectively deal with people,

social situations, and the processes involved in regulating social events. While workers without intellectual disabilities often lose jobs for character reasons (Martin, Rusch, Lagomarcino, & Chadsey-Rusch, 1986); workers with mental retardation more often lose their jobs for reasons involving lack of social awareness (Greenspan & Shoultz, 1981).

In Greenspan's (1979, 1981) model, social awareness is divided into three components: sensitivity, insight, and communication. Sensitivity, a perceptual component, is an ability to recognize *what* is happening in a social event and what others may be experiencing during that event. Insight, an interpretation component, reflects an ability to understand *why* something is happening including an understanding of the motivations and intentions of others, and the importance of social reciprocity. Communication refers to an ability to take appropriate *action* based on an understanding of what is happening in one's surroundings and why it is occurring; this includes referential communication and interpersonal problem-solving. According to Greenspan, a better understanding of the relative contribution of these three components to success in competitive employment would be of obvious benefit in guiding educational practice.

While many researchers have examined the role of social competence in employment success for adults with mental retardation (Butterworth & Strauch, 1994; Greenspan, Shoultz, & Weir, 1981; Salzberg, Lignugaris/Kraft, & McCuller, 1988), the relationship between social competence, particularly social awareness, and employment success for adolescents still in high school has yet to be examined. This may be due, in part, to the relatively recent recognition that actual employment experiences before adolescents with disabilities complete their formal schooling is an important predictor of positive post-school vocational adjustment (Cobb & Hasazi, 1987; Hasazi, Gordon, & Roe, 1985). A second explanation for limited empirical attention on social awareness issues may be that a validated set of social awareness descriptors has not been available to identify individuals' social awareness strengths and weaknesses. Currently, the best way to assess social awareness is through a rather exhaustive battery of projective tests, psychological evaluations, oral interviews, and observations in simulated social situations administered by a trained psychologist. Therefore, the development of a set of descriptors that secondary vocational and special educators could use for student evaluation may promote both empirical study and instruction of social awareness.

Purpose and Objectives

The purpose of this two-phase study was to examine the role of social awareness in the employment success of adolescents adults with mild mental retardation. In Phase 1, a set of social awareness descriptors was developed and validated to measure the three components of social awareness. In Phase 2, teachers used these descriptors to rate students' social awareness levels. Completed ratings were analyzed to determine the influence of social awareness components on two indicators of employment success, employment stability and work performance. Specific objectives were to (a) develop a set of validated social awareness descriptors, (b) describe teachers' ratings of the social

awareness, employment stability, and work performance of secondary students with mild mental retardation, and (c) determine if differences existed in the social awareness of adolescents identified by two separate measures of employment success.

Procedures

Item Development

A search of existing databases was completed to determine whether a suitable rating instrument for the construct, social awareness, was available. While several instruments measured some aspect of social competence, they were not appropriate for the present study for one of several reasons: (a) practical knowledge or performance of specific social skills was assessed rather than social awareness (Greenspan & Love, 1997; Greenspan, Switzky, & Granfield, 1996), (b) the target population did not include adolescents and young adults with mild mental retardation, (c) they involved an extensive battery of individually administered tests given by a trained psychologist, or (d) they did not possess instrument validity and reliability. One scale was located, however, that provided a starting point. This scale was the Checklist of Adaptive Living Skills (CALS) used by McGrew, Bruininks, and Johnson (1996) in a study testing Greenspan's model of personal competence. The adapted CALS contained a total of 85 items taken from the original CALS (Morreau & Bruininks, 1989).[1] Limited work was reported on the validity and reliability of the adapted CALS. Therefore, further validation of the 85-item instrument was necessary.

The next step in the scale development process was to categorize each of the 85 adapted CALS items into one of the three social awareness components described by Greenspan (1979, 1981)—social sensitivity, social insight, or social communication. Forty-one of the original 85 items of adapted CALS items were eliminated because they were either not applicable to social awareness or were repetitive; 44 items were retained. Retained items were then analyzed for content validity (i.e., to determine if the scope and range of Greenspan's definitions were covered by the items) and six new items were written to address aspects of the definitions not addressed.

Validity and Reliability of Social Awareness Descriptors

Panel review. A two-round iterative panel review process was undertaken for the resulting 50-item set of descriptors. The first panel consisted of two professionals recognized in the field of test development for persons with mental retardation. Items were revised or deleted based on panel members' suggestions. The revised set of descriptors was then sent to a recognized professional in the field of social competence for persons with mental retardation. Again, revisions were made resulting in a 30-item set of descriptors, 10 items for each of the three social awareness components.

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[1]The original CALS is a criterion-referenced, individually administered measure of approximately 800 specific adaptive behaviors related to self-care, personal independence, leisure, work, community, and residential environments.

Nominal group technique (NGT). Nineteen graduate students at a large southeastern research university participated in a nominal group technique (NGT) process to evaluate the content and practical validity of the 30 descriptors. This, too, was an iterative process conducted through small group meetings to solicit individual judgments and reactions. According to Moore (1987), NGT may be used as a research validation tool to support data collected through a more quantitative technique. NGT participants were provided written definitions of the overall construct of social awareness and its three components. Participants were asked to place a *1* (for sensitivity), a *2* (for insight), or a *3* (for communication) next to each item to indicate which category they believed best described the item in question. After categorizing all 30 items, participants were told how the items had previously been categorized and were asked to explain any inconsistencies. This feedback was valuable because it identified various ways items could be interpreted. Group discussion allowed participants to express their opinions about ambiguous items, changes in wording, and possible uses for the set of descriptors. Significant revisions were made based on the feedback received from NGT participants. In the final NGT, however, 21 (out of 30) items received 100% agreement, 5 received 86% agreement, 2 items received 71% agreement, and 2 items had less than 70% agreement. Because of the high degree of consensus, we proceeded with the pilot test.

Pilot test with feedback. Pilot test participants were selected for their knowledge of educational assessment, behavior analysis procedures, and considerable teaching experience. Participants were asked to use the set of descriptors to rate the social awareness of one adolescent with a mild disability that they knew well. Participants provided verbal and written feedback about items that were ambiguous or could be interpreted in several ways, and about the practical applications of the descriptors. Overall, comments indicated that the rating process was relatively easy and took no longer than 20 minutes to complete. Based on feedback and a less than 70% agreement during the final NGT round, it was decided that two of the items should be eliminated. These items belonged to the first and third categories, sensitivity and communication, leaving 9 total items in each category. In order to have an equal number of items in each category, an item from the second category, insight, was also eliminated using "alpha to remove" reliability coefficients to identify the item that contributed least to overall scale reliability. Following these revisions, internal consistency reliability using Cronbach's coefficient alpha for the entire scale of 27 items and for the 9 items in each of the three subscales ranged from .65 to .86 which was deemed acceptable to proceed with the second phase of the study (McLoughlin & Lewis, 1994).

To determine the stability of descriptors, test-retest reliability (McLoughlin & Lewis, 1994) was determined by having 8 pilot test participants complete a second rating of their students 2 to 4 weeks after the initial rating. For each of the 8 paired ratings, an overall score and three component correlation coefficients were calculated. The correlation between test-retest scores for the overall social awareness scale was acceptable (r = .86). Stability coefficients for each social awareness component were also high (Sensitivity,

r=.88; Insight, r=.92; Communication, r=.90). High test-retest correlations (like those obtained, r > .80) indicate that the ratings were relatively stable over time (Ary, Jacobs, & Razavieh, 1985). Results were viewed with caution due to the small number of cases used in determining these values.

Sample

To facilitate data collection, a three-tiered sampling process was used. First, county school systems were selected. Then, schools and teachers were selected from within participating county systems, followed by student selection.

County school systems and specific schools. Ten county school systems in northeast Georgia were purposively selected based on their urbancity (i.e., urban, suburban, or rural status), differing levels of annual household income, and student ethnic/racial diversity. Of the 10 systems initially selected for involvement, 2 systems declined to participate and a third did not provide usable data by the cutoff date. Directors of Special Education in the remaining 7 county systems nominated a total of 16 specific schools for participation. All school principals and special education teachers who were then contacted agreed to participate. Before data was collected, a written explanation of the extent of participation, consent forms, and rating forms were distributed, followed by a training session for teachers involved with the study.

Teachers. A total of 38 educators participated in the assessment of adolescents' social awareness and work performance including 25 special education teachers, 8 Related Vocational Instruction (RVI) coordinators, 2 special education department heads, 2 paraprofessionals, and 1 community-based instruction coordinator. An overwhelming majority of the participants (n=34; 89%) were female and White (n=37; 97%). The age of these participants ranged from 23 to 59 years (M=38.06 years, sd=8.49). The total number of years in present employment positions ranged from .75 to 19.75 years (M=5.80 years, sd=5.80). Participants were an experienced group, averaging 13.82 years of experience in the education field and 6.72 years teaching students with mental retardation.

Students. Participating teachers completed the set of social awareness descriptors and employment success ratings for *all* students in their school age 17 or above who received special education services under the category of Mild Intellectual Disabilities (MID). One hundred twenty-five students met these criteria and were included in the study. This number slightly exceeded the total sample size necessary (n=100) for the multivariate design of this study using power, effect size, and degree of desired significance (Olejnik, 1984). Of the 125 participating adolescents, 61% were male. Half of the students were African-American, 46% were White, and 4% were Hispanic or Asian. Slightly over one-third of adolescents were 17 years of age (36%), while the remainder were 18 years of age or older. Half of the sample (52%) was engaged in unpaid employment training, 8% worked in supported employment programs, and 40% worked in competitive employment settings.

Analysis and Results

Social Awareness

The 27-item set of descriptors obtained in Phase 1 of this study was used to rate each adolescent's level of social awareness. Nine items for each of the 3 social awareness components (sensitivity, insight, and communication) were rated on a 5-point Likert-type scale (1=never or rarely even if asked; 2=does, but not well, about ¼ of the time, may often need to be asked; 3=does fairly well, about ½ of the time, may occasionally need to be asked; 4=does well, about ¾ of the time, rarely needs to be asked; 5=does very well, always or almost always, without being asked). Possible scores for each component ranged from a low score of 9 (minimal competence) to a high score of 45 (maximum competence). For all three social awareness subscales, measures of central tendency (mean scores and standard deviations) were roughly equal, and the dispersion of scores approximated a normal distribution that was neither positively nor negatively skewed. Ratings (as shown in Table 1) ranged from the highest to the lowest possible, with a majority of ratings around the middle rating anchor—does fairly well, or ½ of the time, may occasionally need to be asked.

Internal consistency of the social awareness descriptors for the student sample data (n=125) was determined using Cronbach's coefficient alpha for the entire scale (r=.98) and each of the three components (Sensitivity, r=.96; Insight, r=.94; Communication, r=.94). High internal consistency values indicate that items are measuring, to a certain extent, a common entity (Ary et al., 1985). Data from the student sample (n=125) also revealed that the three social awareness components were highly correlated (Sensitivity—Insight,r=.86;Sensitivity—Communication,r=.83;Insight—Communication, r=.85). Component interrelatedness indicated that a large proportion of the total variance was shared, and that multivariate tests would be appropriate.

Employment Stability

Employment success was conceptualized as two separate variables—employment stability and work performance. Employment stability was determined by the number of weeks engaged in *paid* employment during the previous year (regardless of part-time or full-time status). Scores ranged from 0 to 48 weeks (based on 4 weeks per month) with scores closer to 0 indicating less stability in employment and scores closer to 48 indicating greater employment stability. Thirty-three students (26%) had not worked in paid employment during the previous year, while 23 students (18%) had worked the full 48 weeks. The mean for employment stability was 21.56 weeks (sd=18.12). To facilitate group comparisons, the sample was divided into two groups based on the median number of weeks employed (Mdn=20)—adolescents who (a) worked 19 or fewer weeks, or (b) 20 or more weeks during the previous year. While using a median-split technique with continuous data results in the loss of some precision (Tuckman, 1994), our purpose was to determine if differences in social awareness exist in adolescents who are more successful in employment from those less successful. Therefore, a grouping technique was necessary.

Table 1
Description of Social Awareness Ratings

Score Range	Frequency	Percent of Cases	Cumulative Percent
Sensitivity			
9 to 12	4	3.2	3.2
13 to 16	11	8.8	12.0
17 to 20	16	12.8	24.8
21 to 24	17	13.6	38.4
25 to 28	19	15.2	53.6
29 to 32	23	18.4	72.0
33 to 36	21	16.8	88.8
37 to 40	7	5.6	94.2
41 to 45*	7	5.6	100.0
Total	125	100.0	100.0
Mean = 27.01, Std dev. = 8.30, Median = 28.00, Range = 36.00 (from 9 to 45)			
Insight			
9 to 12	4	3.2	3.2
13 to 16	9	7.2	10.4
17 to 20	12	9.6	20.0
21 to 24	22	17.6	37.6
25 to 28	24	19.2	56.8
29 to 32	19	15.2	72.0
33 to 36	15	12.0	84.0
37 to 40	9	7.2	91.2
41 to 45*	11	8.8	100.0
Total	125	100.0	100.0
Mean = 27.58, Std dev. = 8.47, Median = 27.00, Range = 36.00 (from 9 to 45)			
Communication			
9 to 12	5	4.0	4.0
13 to 16	9	7.2	11.2
17 to 20	13	10.4	21.6
21 to 24	20	16.0	37.6
25 to 28	21	16.8	54.4
29 to 32	15	12.0	66.4
33 to 36	24	19.2	85.6
37 to 40	12	9.6	95.2
41 to 45*	6	4.8	100.0
Total	125	100.0	100.0
Mean = 27.50, Std dev. = 8.37, Median = 28.00, Range = 35.00 (from 10 to 45)			

* The distribution did not divide evenly. Therefore, this interval is 1 point larger than others.

Work Performance

While most studies have used employment stability alone as an indicator of employment success, this study added a measure of work performance, the Work Performance Evaluation Form (WPEF; White, 1986; White & Rusch, 1983; used with permission of F. R. Rusch). The WPEF is a 26-item rating scale that examines several aspects of worker performance considered critical to vocational survival including levels of work

quality, responsibility, relationship to supervisors and co-workers, and ability to manage time. Each item is rated on a 5-point Likert-type scale (1=poor, 2=needs improvement, 3=average, 4=good, 5=exceptional). Possible scores can range from a low of 26 to a high of 130 (scores closer to 130 indicate better overall work performance). Actual scores covered the possible range (M=84.74, sd=22.36; Mdn=85.0). Forty-nine students (40%) received scores in the highest range (91-130) indicating good or exceptional performance on most items. A comparable number of adolescents (n=51; 42%) received scores in the middle range (65-90) which indicates average performance on most items. Approximately 18% of students (n = 21) received scores in the lowest range (26-64) indicating their performance was poor or in need of improvement. Again, a median split technique was used to separate participants. Adolescents with scores below the median (Mdn=85) were placed in the lower work performance category; those with scores at or above the median were placed in the higher performance category.

Comparisons of Employment Success Variables and Social Awareness Components

To prepare for analyzing potential differences in social awareness, two calculations were performed. First, a multivariate test for homogeneity of covariance matrices was conducted to determine if assumptions for conducting analysis of variance (ANOVA) tests were violated. Box's M statistic=10.97 [F (18,39509)=.58, *n.s.*] indicated that there were no statistically significant differences among group correlation matrices. In other words, scores were sufficiently homogeneous across groups to meet the assumptions for proper use of ANOVA tests. Second, a multivariate analysis of variance (MANOVA) test was performed to determine if there was an interaction between employment stability and work performance. Wilks' lambda statistic yielded a value of λ=.98 [F(3,115)=.55, *n.s.*] indicating no statistically significant interaction between the two employment success indicators. Therefore, we proceeded with two separate MANOVA tests to analyze the main effects of employment stability and work performance on social awareness.

Main effects for employment stability. To compare the social awareness of high school students who experienced greater stability in employment and those who experienced less stability, means and standard deviations were calculated for the three social awareness components (see Table 2). Results of the omnibus MANOVA test revealed no statistically significant differences among the three social awareness based on level of employment stability [Wilks'λ=.99, F(3,115)=.33, *n.s.*].

Main effects for work performance. Means and standard deviations for the three social awareness components were calculated for participants who rated higher and lower on work performance (see Table 3). Mean ratings on each social awareness subscale were higher for the group rated higher in work performance. Results of the omnibus MANOVA revealed statistically significant differences [Wilks'λ=.87; F(3,115)=5.70, p = .001]. The effect size (eta^2) of this difference was .13 and power was .94.

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Table 2

Social Awareness Component Means and Standard Deviations by Employment Stability[a]

Dependent Measure		Greater Employment Stability[b] (n = 69)	Lesser Employment Stability[c] (n = 56)
Sensitivity	*M*	26.99	27.04
	SD	(8.46)	(8.18)
Insight	*M*	27.87	27.23
	SD	(9.09)	(7.70)
Communication	*M*	27.55	27.43
	SD	(8.93)	(7.71)

Note. Each subscale score represents the total of 9 items rated on a 5-point Likert-type scale (range from 9 to 45 per subscale). [a] n=125. [b]20 weeks or more in paid employment during the preceding 12-months. [c]19 weeks or less in paid employment during the preceeding 12-months.

Table 3

Discriminant Analysis Summary for Social Awareness Components by Work Performance

Dependent Measures		Means and Standard Deviations[a] Higher Rated Work Performance (n=61)[b]	Lower Rated Work Performance (n=60)[c]	Pooled Within-Group Correlation Matrix Sensitivity	Insight	Communication
Sensitivity	*M*	29.43	24.92	1.00	.85	.82
	SD	(7.47)	(8.55)			
Insight	*M*	30.23	25.20		1.00	.84
	SD	(7.99)	(8.36)			
Communication	*M*	30.62	24.45			1.00
	SD	(7.64)	(8.14)			

Subscales	Construct and Group Separation Indices: Within-Group Structure Coefficients	Wilks' Lambda-to-Remove Values
Sensitivity	.7082	.8642
Insight	.7751	.8619
Communication	.9857	.9110

Note. Each subscale score represents the total of 9 items rated on a 5-point Likert-type scale (possible range of scores 9 to 45 per subscale). [a]n=121. [b]Participants who received scores at or above 85 on the Work Performance Evaluation Form (WPEF; White & Rusch, 1983). Scores ranged from 26 to 130. [c]Participants who received scores at or below 84 on the WPEF.

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A descriptive discriminant analysis (DDA) was chosen as the appropriate post hoc follow-up method to determine where specific differences in social awareness existed, due to the multivariate nature and interrelatedness of the dependent variables (Thompson, 1994). According to Huberty and Wisenbaker (1992), DDA results can explain overall mean differences among groups by describing underlying structure, and determining the relative contribution of variables to overall group separation. Construct and group separation indices indicated that communication (e.g., an ability to clearly communicate with others, solve interpersonal problems, and resolve conflicts) provided the greatest separation between students rated higher and lower on work performance (see Table 3).

Conclusions

Two important points must be mentioned when discussing the results of this study. First, due to school and teacher nomination procedures and the purposive method of sampling, results may not be generalized to other populations. Second, these findings are based on teachers' perceptions rather than direct measures of social and employment competence. With this second caveat in mind, it is appropriate to briefly discuss the value of using the judgments of others in rating social competence and work performance.

Greenspan (1981) stated "social success is relative to the culture and settings in which an individual typically functions. The ultimate outcome criterion for validating content measures of social competence should, therefore, be the judgments of other people in the individual's environment" (pp. 24-25). According to McFall (1982), it is advantageous to ask significant others to evaluate an individual's social competence because the rating will be based on a wide sample of naturally occurring behaviors in various situations and not merely what could be viewed by an observer over limited periods of time. Several authors have agreed that having teachers or others evaluate social and work behavior is appropriate because these professionals are capable of making meaningful judgments based on their exposure to the individual, and because of their special position to make meaningful recommendations about intervention/instruction based on those judgments (Forte, Storey, & Gaylord-Ross, 1989; Kazdin & Matson, 1981; Walker & Calkins, 1986; White, 1986; White & Rusch, 1983).

Social Awareness

The three social awareness components (sensitivity, insight, and communication) were highly interrelated in this study, sharing a large proportion of the total variance. High correlations between social awareness components seem to imply that the three facets of social awareness are not separate and distinct and might be more accurately conceptualized as three overlapping circles reflecting shared variance. While speculative, it appears that models representing the processing of social information as sequential, proceeding through several set steps from encoding to interpretation, from interpretation to response search and evaluation, and finally to enactment (Dodge, Petit, McClaskey, & Brown, 1986; Perry & Perry, 1987), may be oversimplifying this complex and

multifaceted issue. Our findings suggest that further research is needed to determine if, in fact, the process of taking in, interpreting, and finally acting on social information is sequential or if these processes are simultaneous and more integrated with information recycling along the way.

Greenspan and Shoultz (1981) stated "there is considerable variability in the social competence of mentally retarded workers, with a large percentage demonstrating both job stability and acceptable (sometimes exceptional) levels of social competence" (p. 34). Our study supports this assertion. For all three social awareness subscales, measures of central tendency were roughly equal; and the dispersion of scores approximated a normal distribution that was neither positively nor negatively skewed. Interestingly, when explaining the study to a participating teachers, another teacher (not a participant) asked, "Doesn't the definition of mental retardation imply that all students in your study will have low social awareness?" Results indicate that the presence of an intellectual disability does not imply low levels of perceived social awareness. Only 20% of the students received scores indicating they did not perform the items well and needed frequent prompting.

Employment Success

Employment stability. No statistically significant differences in social awareness were found based on employment stability. Thus, students who were engaged in paid employment at least 20 weeks during the previous year did not differ substantially in their social awareness ratings from students who participated primarily in unpaid employment training programs. It appears, then, that length of time in employment did not influence teachers' perceptions of students' social awareness. This finding may also indicate that social awareness does not increase by merely being employed. Students who had worked for longer periods of time in community settings were not perceived as having a better understanding of how to be interpersonally effective. This could be attributable to lowered levels of incidental learning and the need for direct instruction in pointing out relevant features of various workplace environments. However, further research is needed to make any definitive conclusions in this area. It also appears that factors other than social awareness account for which students were placed in competitive employment (or find their own jobs) and which students participated primarily in unpaid training situations.

Work performance. Mean ratings on all three social awareness subscales were higher for the group rated higher in work performance. These differences were statistically significant and seem to imply that social awareness variables play a significant role in how participants were rated on their work performance. Students with higher rated social awareness received higher ratings in work performance suggesting that if a student was viewed as exhibiting a higher level of social understanding, their work performance was also more likely to be viewed favorably. It would be interesting for future research to determine whether higher perceived levels of social awareness lead to

more favorable perceptions of work performance, or do more satisfactory levels of work performance lead to perceptions of higher social awareness?

The practical significance of this finding also deserves discussion. The effect size of the difference between groups indicated that approximately 13% of the variance in work performance could be attributed to the social awareness components which is quite high considering other factors that could influence the work performance rating (i.e., familiarity with job tasks, physical coordination and health, dependability, working safely, and completing tasks). Even so, a majority of the variance in employment success was not accounted for by social awareness components. This is interesting when considering the number of studies that have reported the loss of employment by adults with mental retardation due to lack of social awareness (e.g., Greenspan & Shoultz, 1981). Additional study is needed to reconcile this apparent discrepancy.

Finally, the greatest distinction between students rated higher and lower on work performance could be based on their awareness of social communication (e.g., an ability to take appropriate action involving clearly communicating with others, solving interpersonal problems, and resolving conflicts). This is consistent with research literature emphasizing the importance of communication, negotiation/conflict resolution in the workplace such as *Workplace Basics* (Carnevale, Gainer, & Meltzer, 1990), the *SCANS Report* (Secretary's Commission on Achieving Necessary Skills, 1991), and others (Chamberlain, 1988; McCrea, 1991), and might indicate that ratings of work performance are more dependent on overt actions (items in the communication subscale involved taking appropriate action) than internal cognitive processes like sensitivity and insight components. One teacher in this study mentioned that items in the communication subscale were easier to evaluate with a higher degree of accuracy because these items can be observed more directly. Thus, the contribution of communication to overall group differences may be a reflection of a more accurate evaluation or the importance placed on these skills in the workplace.

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